

[illegible]

The apparatus includes an air pulse for applying a pulse of fluid to the web to create a wave in the web. At least two laser displacement transducers are present. The laser displacement transducers measure the displacement of the web as the wave moves through the web. A computer is present which obtains signals from the at least two laser displacement transducers. The computer calculates the instability index in the web based on the speed of the wave in the web and the speed of the web.